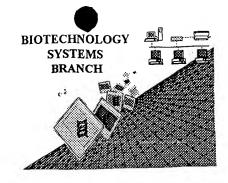
RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	09/508,658
Source:	/655
Date Processed by STIC:	6/21/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

		SUGGESTED CORRECTION SERIAL NUMBER: 09/508,65	7
	R DETECTED		O
ATTN: N		: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO S	
1	_Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if y was retrieved in a word processor after creating it. Please adjust your right margin to .3; this prevent "wrapping."	our file will
2	Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbuse space characters, instead.	ers;
4	Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. I ensure your subsequent submission is saved in ASCII text.	Please
5	Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Ru each n or Xaa can only represent a single residue. Please present the maximum number or residue having variable length and indicate in the <220>-<223> section that some may be missidue.	i cacii
6	Patentin 2.0 "bug"	A "bug" in Patentin version 2.0 has caused the <220>-<223> section to be missing from amin sequences(s) Normally, Patentin would automatically generate this section from previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> sections the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections Artificial or Unknown sequences.	ction to
7	Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this he (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
		Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped se	equences.
8	_Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipps <210> sequence id number <400> sequence id number 000	ed sequence.
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are pressed to <223> to <223> section, please explain location of n or Xaa, and which residue n or Xaa	sent. represents.
10	_Invalid <213> Response Use of <220>	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence scientific name (Genus/species). <220>-<223> section is required when <213> response is is Artificial Sequence Sequence(s)	responses ence" or
12	PatcntIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted of resulting in missing mandatory numeric identifiers and responses (as indicated on raw seque listing). Instead, please use "File Manager" or any other manual means to copy file to floppy	iicc

AMC - Biotechnology Systems Branch - 06/04/2001

1655

DATE: 06/21/2001 RAW SEQUENCE LISTING TIME: 11:43:24 PATENT APPLICATION: US/09/508,658

Input Set : A:\U0126539.app

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Does Not Comply
                                                          Collected Diskette Needed
 3 <110> APPLICANT: Krohn, Kai
         Heino, Maarit
         Peterson, Part
 5
         Scott S., Hamish
 6
         Antonarakis E., Stylianos
 7
         Lalioti D., Maria
 8
         Shimizu, Nobuyoshi
 9
         Kudoh, Jun
10
12 <120> TITLE OF INVENTION: NOVEL GENE DEFECTIVE IN APECED AND ITS USE
14 <130> FILE REFERENCE: U0126539
16 <140> CURRENT APPLICATION NUMBER: 09/508,658
17 <141> CURRENT FILING DATE: 2000-11-03
19 <150> PRIOR APPLICATION NUMBER: PCT/FI98/00749
20 <151> PRIOR FILING DATE: 1998-09-23
22 <150> PRIOR APPLICATION NUMBER: 973762
23 <151> PRIOR FILING DATE: 1997-09-23
25 <160> NUMBER OF SEQ ID NOS: 36
27 <170> SOFTWARE: PatentIn Ver. 2.0
29 <210> SEQ ID NO: 1
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47 cgaggccaag cgaggggctg ccagtgtccc gggacccacc gcgtccgccc cagccccggg 120
49 teccegegee caeece atg geg acg gae geg geg eta ege egg ett etg agg 172
                     Met Ala Thr Asp Ala Ala Leu Arg Arg Leu Leu Arg
51
                                                                       220
53 ctg cac cgc acg gag atc gcg gtg gcc gtg gac agc gcc ttc cca ctg
54 Leu His Arg Thr Glu Ile Ala Val Ala Val Asp Ser Ala Phe Pro Leu
                                 20
57 ctg cac gcg ctg gct gac cac gac gtg gtc ccc gag gac aag ttt cag
                                                                       268
58 Leu His Ala Leu Ala Asp His Asp Val Val Pro Glu Asp Lys Phe Gln
59
        30
                             35
61 gag acg ctt cat ctg aag gaa aag gag ggc tgc ccc cag gcc ttc cac
62 Glu Thr Leu His Leu Lys Glu Lys Glu Gly Cys Pro Gln Ala Phe His
                                             55
                         50
65 gcc ctc ctg tcc tgg ctg ctg acc cag gac tcc aca gcc atc ctg gac
                                                                       364
66 Ala Leu Leu Ser Trp Leu Leu Thr Gln Asp Ser Thr Ala Ile Leu Asp
```

RAW SEQUENCE LISTING

DATE: 06/21/2001 TIME: 11:43:24 PATENT APPLICATION: US/09/508,658

Input Set : A:\U0126539.app

67	65	70	75	
69 tto taa aga ata	g ctg ttc aag gac t	ac aac ctg gag	cgc tat ggc cgg	412
70 Phe Tro Arg Val	Leu Phe Lys Asp T	yr Asn Leu Glu	Arg Tyr Gly Arg	
71 80		8 5	90	
	c ctg gac agc ttc c	cc aaa gat gtg	gac ctc agc cag	460
74 Leu Gln Pro Ile	e Leu Asp Ser Phe P	ro Lys Asp Val	Asp Leu Ser Gln	
75 95	100		105	
77 ccc cqq aaq qqq	g agg aag ccc ccg g	cc gtc ccc aag	gct ttg gta ccg	508
78 Pro Arg Lys Gly	y Arg Lys Pro Pro A	la Val Pro Lys	Ala Leu Val Pro	
79 110	115	120		
81 cca ccc aga ctc	c ccc acc aag agg a	ag gcc tca gaa	gag gct cga gct	556
82 Pro Pro Arg Leu	u Pro Thr Lys Arg L	ys Ala Ser Glu	Glu`Ala Arg Ala	
83 125	130	135	140	
85 gcc gcg cca gca	a gcc ctg act cca a	gg ggc acc gcc	agc cca ggc tct	604
86 Ala Ala Pro Ala	a Ala Leu Thr Pro A	rg Gly Thr Ala	Ser Pro Gly Ser	
87	145	150	155	
89 caa ctg aag gcc	c aag ccc ccc aag a	ag ccg gag agc	agc gca gag cag	652
90 Gln Leu Lys Ala	a Lys Pro Pro Lys I	ys Pro Glu Ser	Ser Ala Glu Gln	
91 160	_	.65	170	
93 cag cgc ctt cca	a ctc ggg aac ggg a	tt cag acc atg	tca gct tca gtc	700
94 Gln Arg Leu Pro	o Leu Gly Asn Gly I	le Gln Thr Met	Ser Ala Ser Val	
95 175	180		185	5.40
97 cag aga gct gtg	g gcc atg tcc tcc g	gg gac gtc ccg	gga gcc cga ggg	748
98 Gln Arg Ala Va	l Ala Met Ser Ser G		Gly Ala Arg Gly	
99 190	195	200		706
101 gcc gtg gag gg	gg atc ctc atc cag	cag gtg ttt gag	tca ggc ggc tcc	796
102 Ala Val Glu G	ly Ile Leu Ile Gln	Gln Val Phe Glu	Ser Gly Gly Ser	
103 205	210	215	220	0.4.4
105 aag aag tgc at	tc cag gtt ggc ggg	gag ttc tac act	ccc agc aag ttc	844
106 Lys Lys Cys I	le Gln Val Gly Gly		Pro Ser Lys Pne	
107	225	230	235	892
109 gaa gac tcc g	gc agt ggg aag aac	aag gcc cgc agc	age agt gge eeg	092
	ly Ser Gly Lys Asn		ser ser Gly Pro	
	40	245	250	940
113 aag oot otg g	tt cga gcc aag gga	gee cag gge get	gee eee ggt gga	940
_	al Arg Ala Lys Gly	Ala Gin Giy Ala	265	
115 255	260	att aa		988
117 ggt gag gct a	gg ctg ggc cag cag	gge age gil ee	Ala Pro Lou Ala	200
	rg Leu Gly Gln Gln	280		
119 270	275			1036
121 ctc ccc agt g	ac ccc cag ctc cac	cag aag aat gag	y dec gay tyt yet	1030
	sp Pro Gln Leu His		ASP GIU CYS AIA	
123 285	290	295		1084
125 gtg tgt cgg g	ac ggc ggg gag ctc	The Cyc Cyc Act	o Gly Cye Dro Arg	7004
	sp Gly Gly Glu Leu	310	315	
127	305			1132
129 gcc ttc cac c	tg gcc tgc ctg tcc eu Ala Cys Leu Ser	Dro Dro Lei Are	Glu Ile Pro Ser	
		325	330	
131 3	20	JLJ	555	

RAW SEQUENCE LISTING

DATE: 06/21/2001 TIME: 11:43:24 PATENT APPLICATION: US/09/508,658

Input Set : A:\U0126539.app

ggg Gly	acc Thr	Trp	agg Arg	tgc Cys	tcc Ser	agc Ser	Cys	ctg Leu	cag Gln	gca Ala	aca Thr	Val	cag Gln	gag Glu	gtg Val	1180
cag Gln	Pro	caa	gca Ala	gag Glu	gag Glu	Pro	cgg	ccc Pro	cag Gln	gag Glu	Pro	ccc	gtg Val	gag Glu	acc Thr	1228
Pro	ctc	ccc Pro	ccg Pro	ggg Gly	Leu	aqq	tcg Ser	gcg Ala	gga Gly	gag Glu 375	gag	gta Val	aga Arg	ggt Gly	cca Pro 380	1276
cct	ggg Gly	gaa Glu	ccc Pro	Leu	qcc	ggc Gly	atg Met	gac Asp	acg Thr 390	act Thr	ctt Leu	gtc Val	tac Tyr	aag Lys 395	cac His	1324
ctg Leu	ccg Pro	gct Ala	Pro	cct	tct Ser	gca Ala	gcc Ala	Pro	ctg Leu	cca Pro	ggg Gly	ctg Leu	gac Asp 410	tcc Ser	tcg Ser	1372
gcc Ala	ctg Leu	His	CCC	cta Leu	ctg Leu	tgt Cys	Val	gct	cct Pro	gag Glu	ggt Gly	cag Gln 425	cag Gln	aac Asn	ctg Leu	1420
gct Ala	Pro	aat	gcg Ala	cgt Arg	tgc Cys	Gly	gtg	tgc Cys	gga Gly	gat Asp	Gly	acg Thr	gac Asp	gtg Val	ctg Leu	1468
Arg	tat	act Thr	cac His	tgc Cys	Ala	gct	gcc Ala	ttc Phe	cac His	${\tt Trp}$	cgc	tgc Cys	cac His	ttc Phe	Pro	1516
acc	ggc Gly	acc Thr	tcc Ser	Arg	CCC	ggg Gly	acg Thr	ggc Gly	Leu	cgc	tgc Cys	aga Arg	tcc Ser	Cys	tca	1564
gga Gly	gac Asp	gtg Val	Thr	cca	gcc Ala	cct Pro	gtg Val	Glu	ggg	gtg Val	ctg Leu	gcc Ala	Pro	agc Ser	ccc Pro	1612
gcc Ala	cgc Arg	Leu	qcc	cct Pro	ggg Gly	cct Pro	Ala	aag	gat Asp	gac Asp	act Thr	Ala	agt	cac His	gag Glu	1660
Pro	Ala	ctq	cac His	agg Arg	gat Asp	Asp	ctg	gag Glu	tcc Ser	ctt Leu	Leu	agc	gag Glu	cac His	acc Thr	1708
ttc Phe	gat Asp	ggc Gly	atc Ile	ctg Leu	Gln	tgg	gcc Ala	atc Ile	cag Gln	Ser	atg Met	gcc Ala	cgt Arg	ccg Pro	Ala	1756
gcc Ala	ccc			Ser	tga	ccc	caga	tgg	ccgg			agct	ctga	t		1804
189 gagagagtgc tgagaaggac acctecttee teagteetgg aageeggeeg getgggatea 191 agaaggggac agegeeact ettgteagtg eteggetgta aacagetetg tgtteetgg 193 gacaccagee ateatgtgee tggaaattaa accetgeeee acttetetae tetggaagte 195 eeegggagee teteettgee tggtgaeeta etaaaaatat aaaaattage tg 198 <210> SEQ ID NO: 2 199 <211> LENGTH: 545								1924								
	Gly cag Gln ccg Gln ccg Pro 365 cct Pro ctg Leu gcc Ala gct Ala ggay 445 gcc Ala ggay gcc Ala ccc Pro tche 525 gca agac cc21 <21	Gly Thr cag ccc Gln Pro 350 ccg ctc Pro Leu 365 cct ggg Pro Gly ctg ccg Leu Pro gcc ctg Ala Leu gct cct Ala Pro 430 cgg tgt Arg Cys 445 gcc ggc Ala Gly gga gac Gly Asp gcc cgc Ala Arg ccc gct Pro Ala ttc gat Pro Ala ttc gat Pro gagagag agaaggg gacacca cccggga <210> S <211> L	Gly Thr Trp 335 cag ccc cgg Gln Pro Arg 350 ccg ctc ccc Pro Leu Pro 365 cct ggg gaa Pro Gly Glu ctg ccg gct Leu Pro Ala gcc ctg cac Ala Leu His gct cct ggt Ala Pro Gly 430 cgg tgt act Arg Cys Thr 445 gcc ggc acc Ala Gly Thr gga gac gtg Gly Asp Val gcc cgc ctg Ala Arg Leu 495 ccc gct ctg Pro Ala Leu 510 ttc gat ggc Phe Asp Gly 525 gcc ccc ttc Ala Pro Phe gagagagtgc agaagggacc cccgggagcc cccgggagcc ccccgggagcc ccccggagcc ccccgggagcc cccccccc	Gly Thr Trp Arg	Gly Thr Trp Arg Cys	Gly Thr Trp Arg Cys Ser 335 cag ccc cgg gca gag gag Gln Pro Arg Ala Glu Glu 350 ccg ctc ccc ccg ggg ctt Pro Leu Pro Pro Gly Leu 365 ctg ggg gaa ccc cta gcc Pro Gly Glu Pro Leu Ala 385 ctg ccg gct ccg cct tct Leu Pro Ala Pro Pro Ser 400 gcc ctg cac ccc cta ctg Ala Leu His Pro Leu Leu 415 gct cct ggt gcg cgt tgc Ala Pro Gly Ala Arg Cys Ala Arg Cys Ala A45 gcc ggc acc tcc cgg ccc Ala Gly Thr Ser Arg Pro Ala A80 gcc ggc acc tcc cgg ccc Ala Gly Thr Ser Arg Pro Ala A80 gcc cgc ctg gcc cct ggg Ala Arg Cys Ala A80 gcc cgc ctg gcc cct ggg Ala Arg Leu Ala Pro Gly A95 ccc gct ctg cac agg gat Pro Ala Leu His Arg Asp 510 ttc gat ggc atc ctg cag Phe Asp Gly Ile Leu Gln 525 gagagagtgc tgagaaggac aggacaccct c gacaccagc atcatgtgcc t cccgggagcc tctccttgcc t <210> SEQ ID NO: 2 <211> LENGTH: 545	Gly Thr Trp Arg Cys Ser Ser 335 cag ccc cgg gca gag gag ccc Gln Pro Arg Ala Glu Glu Pro 350 ccg ctc ccc ccg ggg ctt agg Pro Leu Pro Pro Gly Leu Arg 365 cct ggg gaa ccc cta gcc ggc Pro Gly Glu Pro Leu Ala Gly 385 ctg ccg gct ccg cct tct gca Leu Pro Ala Pro Pro Ser Ala 400 gcc ctg cac ccc cta ctg tgt Ala Leu His Pro Leu Leu Cys 415 gct cct ggt gcg cgt tgc ggg Ala Pro Gly Ala Arg Cys Gly 430 cgg tgt act cac tgc gcc gct Arg Cys Thr His Cys Ala Ala 445 gcc ggc acc tcc cgg ccc ggg Ala Gly Thr Ser Arg Pro Gly A65 gga gac gtg acc cca gcc cct Gly Asp Val Thr Pro Ala Pro Gly Pro 495 ccc gct ctg cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cag tgg Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctc tga cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cac agg gat gac Pro Ala Leu His Arg Asp Asp 510 ttc gat ggc atc ctg cac tga ccc Ala Pro Phe Pro Ser 545 gagagagatgc tgagaaaggac acctc agaagggac agcccact cttgt gacaccagca atcatgtgcc tggaa ccgggaaccaccaccagca atcatgtgcc tggaa ccgggaaccaccagca atcatgtgcc tggaa ccgggaaccaccagca ctcctcttgcc tggtg <210> SEQ ID NO: 2 <2211> LENGTH: 545	Gly Thr Trp Arg Cys Ser Ser Cys 335	Gly Thr Trp Arg Cys Ser Ser Cys Leu 335	Gly Thr Trp Arg Cys Ser Ser Cys Leu Gln 335	Gly Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala 335	G1y Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala Thr	GIY Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala Thr Val 335	Gly Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala Thr Val Gln 335	Gly Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala Thr Val Gln Glu 345 cag ccc cgg gca gag gag ccc cgg ccc cag gag cca ccc gtg gag Gln Pro Arg Ala Glu Glu 9ro Arg Ala Glu Glu 9ro Arg Pro Gln Glu 9ro Pro Val Glu 350 ccg ctc ccc ccg ggg ctt agg tcg gcg gga gag gag gta aga ggt Pro Leu Pro Pro Gly Leu Arg Ser Ala Gly Glu Glu Val Arg Gly 370 cct ggg gaa ccc cta gcc ggc atg gac acg act ctt gtc tac aag Pro Gly Glu Pro Pro Ser Ala Gly Met Asp Thr Thr Leu Val Tyr Lys 385 ccg ctc ccg gct ccg cct tct gca gcc gcd ccg gcg ctg gac tcc Leu Pro Ala Pro Pro Ser Ala Ala Pro Leu Pro Gly Leu Asp Ser Ala Ala Pro Gly Glu Glu Asp Ser Ala Leu His Pro Leu Leu Cys Val Ala Pro Gly Gly Gln Gln Asn 415 gct cct ggt gcg cgt tgc ggg gtg gt ccc gag ggt cag aga ac Ala Leu His Pro Leu Leu Cys Val Ala Pro Glu Gly Gln Gln Asn 420 gct cct ggt gcg cgt tgc ggg gtg gt tgc ga gat ggt acg acg aca Ala Pro Gly Ala Arg Cys Gly Val Cys Gly Asp Gly Thr Asp Val 430 gcg tgt act cac tgc gcc gct gc gg gg ggg gg gg gg gg gg gg gg gg gg	Gly Thr Trp Arg Cys Ser Ser Cys Leu Gln Ala Thr Val Gln Glu Val 335

RAW SEQUENCE LISTING

DATE: 06/21/2001 TIME: 11:43:24

PATENT APPLICATION: US/09/508,658

Input Set : A:\U0126539.app

Output Set: N:\CRF3\06202001\I508658.raw

201 <213> ORGANISM: Homo sapiens 203 <400> SEQUENCE: 2 204 Met Ala Thr Asp Ala Ala Leu Arg Arg Leu Leu Arg Leu His Arg Thr 207 Glu Ile Ala Val Ala Val Asp Ser Ala Phe Pro Leu Leu His Ala Leu 25 20 210 Ala Asp His Asp Val Val Pro Glu Asp Lys Phe Gln Glu Thr Leu His 45 40 3.5 213 Leu Lys Glu Lys Glu Gly Cys Pro Gln Ala Phe His Ala Leu Leu Ser 55 216 Trp Leu Leu Thr Gln Asp Ser Thr Ala Ile Leu Asp Phe Trp Arg Val 70 219 Leu Phe Lys Asp Tyr Asn Leu Glu Arg Tyr Gly Arg Leu Gln Pro Ile 90 85 222 Leu Asp Ser Phe Pro Lys Asp Val Asp Leu Ser Gln Pro Arg Lys Gly 105 100 225 Arg Lys Pro Pro Ala Val Pro Lys Ala Leu Val Pro Pro Pro Arg Leu 120 226 115 228 Pro Thr Lys Arg Lys Ala Ser Glu Glu Ala Arg Ala Ala Pro Ala 135 140 130 231 Ala Leu Thr Pro Arg Gly Thr Ala Ser Pro Gly Ser Gln Leu Lys Ala 155 150 234 Lys Pro Pro Lys Lys Pro Glu Ser Ser Ala Glu Gln Gln Arg Leu Pro 165 170 237 Leu Gly Asn Gly Ile Gln Thr Met Ser Ala Ser Val Gln Arg Ala Val 185 180 238 240 Ala Met Ser Ser Gly Asp Val Pro Gly Ala Arg Gly Ala Val Glu Gly 195 200 243 Ile Leu Ile Gln Gln Val Phe Glu Ser Gly Gly Ser Lys Lys Cys Ile 215 246 Gln Val Gly Gly Glu Phe Tyr Thr Pro Ser Lys Phe Glu Asp Ser Gly 235 230 249 Ser Gly Lys Asn Lys Ala Arg Ser Ser Ser Gly Pro Lys Pro Leu Val 250 245 252 Arg Ala Lys Gly Ala Gln Gly Ala Ala Pro Gly Gly Glu Ala Arg 265 260 255 Leu Gly Gln Gln Gly Ser Val Pro Ala Pro Leu Ala Leu Pro Ser Asp 280 275 258 Pro Gln Leu His Gln Lys Asn Glu Asp Glu Cys Ala Val Cys Arg Asp 300 295 261 Gly Gly Glu Leu Ile Cys Cys Asp Gly Cys Pro Arg Ala Phe His Leu 310 264 Ala Cys Leu Ser Pro Pro Leu Arg Glu Ile Pro Ser Gly Thr Trp Arg 330 325 267 Cys Ser Ser Cys Leu Gln Ala Thr Val Gln Glu Val Gln Pro Arg Ala 345 340 270 Glu Glu Pro Arg Pro Gln Glu Pro Pro Val Glu Thr Pro Leu Pro Pro 360 273 Gly Leu Arg Ser Ala Gly Glu Glu Val Arg Gly Pro Pro Gly Glu Pro RAW SEQUENCE LISTING DATE: 06/21/2001 PATENT APPLICATION: US/09/508,658 TIME: 11:43:24

Input Set : A:\U0126539.app

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380
                            375
276 Leu Ala Gly Met Asp Thr Thr Leu Val Tyr Lys His Leu Pro Ala Pro
                                            395
                        390
279 Pro Ser Ala Ala Pro Leu Pro Gly Leu Asp Ser Ser Ala Leu His Pro
                                        410
                   405
282 Leu Leu Cys Val Ala Pro Glu Gly Gln Gln Asn Leu Ala Pro Gly Ala
                                                         430
                                    425
               420
285 Arg Cys Gly Val Cys Gly Asp Gly Thr Asp Val Leu Arg Cys Thr His
                                                     445
            435
                                440
288 Cys Ala Ala Ala Phe His Trp Arg Cys His Phe Pro Ala Gly Thr Ser
                            455
        450
291 Arg Pro Gly Thr Gly Leu Arg Cys Arg Ser Cys Ser Gly Asp Val Thr
                                            475
                        470
292 465
294 Pro Ala Pro Val Glu Gly Val Leu Ala Pro Ser Pro Ala Arg Leu Ala
                                        490
                    485
297 Pro Gly Pro Ala Lys Asp Asp Thr Ala Ser His Glu Pro Ala Leu His
                                    505
                500
298
300 Arg Asp Asp Leu Glu Ser Leu Leu Ser Glu His Thr Phe Asp Gly Ile
                                520
          515
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        530
306 Ser
307 545
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317 <222> LOCATION: (237)..(1283)
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322 <222> LOCATION: (1)..(348)
323 <223> OTHER INFORMATION: /product="AIR-2"
325 <400> SEQUENCE: 3
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330 atccactggg aatgccatgc tcatctttcg tccccagcat ggtttcttaa tggggtagaa 180
332 gcaggtcggg agagacctcc ctgggcctgg ccccactgcc ctgtgaggaa gggttc atg 239
                                                                   Met
333
334
336 tgg ttg gtg tac agt tcc ggg gcc cct gga acg cag cag cct gca aga
337 Trp Leu Val Tyr Ser Ser Gly Ala Pro Gly Thr Gln Gln Pro Ala Arg
                                      1.0
                  5
340 aac egg gtt ttc ttc cca ata ggg atg gcc eeg ggg ggt gtc tgt teg
341 Asn Arg Val Phe Phe Pro Ile Gly Met Ala Pro Gly Gly Val Cys Ser
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344 aga cca gat gga tgg gga aca ggt ggt cag ggc aga att tca ggc cct
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09/508,658 6

<210> 7 <211> 20 <212> DNA Sel Len // on Summar	y Sheet
<213>Artificial Sequence	
<400> 7 gatgacactg ccagtcacga	20
<210> 8 <211> 22 <212> DNA <213> Artificial Sequence	
<400> 8 gttcccgagt ggaaggcgct gc	22
<210> 9 <211> 20 <212> DNA <213> Artificial Sequence	
<400> 9 aggggacagg caggccaggt	20
The above sequences are same. The types of errors shown exist throughout the Sequence Listing. Please of	check global
subsequent sequences for similar errors	,

.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/508,658

DATE: 06/21/2001 TIME: 11:43:25

Input Set : A:\U0126539.app

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VERIFICATION SUMMARY

DATE: 06/21/2001 TIME: 11:43:25

PATENT APPLICATION: US/09/508,658

Input Set : A:\U0126539.app

Output Set: N:\CRF3\06202001\I508658.raw

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